UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF INDIANA
INDIANAPOLIS DIVISION

PENDLETON HEIGHTS GAY-STRAIGHT ALLIANCE, an unincorporated association,

Plaintiff,

Case No: 1:21-cv-02480-JRS-TAB

v.

SOUTH MADISON COMMUNITY SCHOOL CORPORATION; PRINCIPAL, PENDLETON HEIGHTS HIGH SCHOOL, in her official capacity,

Defendants.

AFFIDAVIT OF BRANDEN JESSIE

1. My name is Branden Jessie, I am over eighteen (18) years of age, and I have personal knowledge of the facts stated herein.

2. I am an Industrial Tech Teacher at Pendleton Heights High School.

3. I am also a sponsor for the Robotics Club.

4. I receive a stipend as the sponsor of the Robotics Club because it is a corporation-sponsored club.

5. The Robotics Club is directly related to the Principles of Engineering and Computer Science curriculum that is taught at Pendleton Heights High School.

6. In general, robotics is the construction, programming, and use of robots, as specialized machines designed to perform certain tasks that humans assign.

7. Robots are currently used in a wide range of different fields, either to replace or to augment human labor.

EXHIBIT F

8. In Robotics club, students learn how to program and operate robots.

9. The students who participate in Robotics design, build, and program a robot that is entered into competitions against other student designed, built, and programmed robots.

10. Students in Robotics must apply their knowledge of engineering and computer science, and get to do so in a way that allows them to compete to win prizes and scholarships that can be substantial enough to help with the costs of college.

11. At Pendleton Heights High School students can take a course called Principles of Engineering, which is part of the Project Lead the Way curriculum.

12. The Principles of Engineering course at Pendleton Heights High School is a broad-based survey course designed to help students understand the field of engineering and engineering technology and its career possibilities.

13. In that course, students develop engineering problem-solving skills that are involved in postsecondary education programs and engineering careers.

14. Students also learn how engineers address concerns about the social and political consequences of technological change.

15. Four units are taught in the Principles of Engineering course.

16. Unit three is: Control Systems.

17. The goal of Unit 3 is for students to recognize the abundance of, and infinite variety of, computer use in our daily lives.

18. Students learn to control mechanical systems by recognizing computer outputs and gaining an understanding of how to write code to control them.

19. Students experiment with various input devices and learn how they can adapt computer code to control computer outputs.

20. Students gain an understanding of fluid power, both hydraulic and pneumatic. They begin to recognize the power and control advantages of fluid power.

21. Unit 3 concludes with students working in teams to solve a design problem that focuses on using control systems. In doing so, they integrate their knowledge, skills, and understandings from Unit 1: Simple Machines, Unit 2: Material Properties, and Unit 3: Control Systems.

22. At the conclusion of Unit 3, students decide what input devices to use, how to code their use, and the various output devices necessary to create a solution to the problem.

23. The following Principals of Engineering standards are required by the Indiana Department of Education, are the basis the Pendleton Heights' Principapal of Engineering Curriculum, and are directly related to the activities of Robotics:

Domain – Control Systems Core Standard 7

Students apply concepts of computer programming, logic, and fluid power to establish an automated control system.

POE-7.1 Create control system operating programs that utilize computer software.

POE-7.2 Create system control programs that utilize flowchart logic.

POE-7.3 Choose appropriate input and output devices based on the need of a technological system.

POE-7.4 Differentiate between the characteristics of digital and analog devices.

POE-7.5 Judge between open and closed loop systems in order to choose the most appropriate system for a given technological problem.

POE-7.6 Describe applications of process control and automation systems.

POE-7.7 Apply design concepts to problems in process control and automations systems.

24. Students who participate in Robotics Club in a meaningful way can satisfy the graduation requirement for employability skills because Robotics Club provides a project-based learning program.

25. If a student meaningfully engages and participates in design, building, and programing of the Robotic Club robot, I can sign-off on that student's record indicating he or she has satisfied his or her Employability Skills requirement for graduation.

Date: 12-9-21

Branden Jessie